

## Osage County

### Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors

6/27/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 20 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Osage County economy.<sup>1</sup>

These 20 sectors have a total direct output of approximately **\$139.8 million** and support **1,161 jobs** in Osage County. Running the model for all 20 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Osage County Economy					
Contribution Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>
<b>Direct Effect</b>	1160.5	20.08%	\$44,485,022	15.41%	\$139,784,139
<b>Indirect Effect</b>	89.4	1.55%	\$5,742,181	1.99%	\$12,524,789
<b>Induced Effect</b>	51.0	0.88%	\$3,344,594	1.16%	\$6,442,161
<b>Total Effect</b>	1300.8	22.51%	\$53,571,798	18.56%	\$158,751,089

As shown in the above table, agriculture, food, and food processing sectors support **1,301 jobs**, or **22.51%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 20 agriculture, food, and food processing sectors is approximately **\$53.6 million**, or **18.56% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

<https://implanhelp.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis>

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **753 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Osage County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	752.6	\$45,971,246
Landscape and horticultural services	78.0	\$2,936,623
All other crop farming	69.0	\$2,879,319
Grain farming	58.8	\$11,452,569
Oilseed farming	54.9	\$30,888,613
Animal, except poultry, slaughtering	47.2	\$31,760,735
Veterinary services	28.7	\$2,587,635
Support activities for agriculture and forestry	23.6	\$1,450,880
Dairy cattle and milk production	21.0	\$6,124,931
Truck transportation	18.6	\$2,535,551

The beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector directly contributes approximately **\$46.0 million** to the Osage County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	752.6	\$45,971,246
Animal, except poultry, slaughtering	47.2	\$31,760,735
Oilseed farming	54.9	\$30,888,613
Grain farming	58.8	\$11,452,569
Dairy cattle and milk production	21.0	\$6,124,931
Landscape and horticultural services	78.0	\$2,936,623
All other crop farming	69.0	\$2,879,319
Veterinary services	28.7	\$2,587,635
Wholesale trade	13.6	\$2,548,130
Truck transportation	18.6	\$2,535,551

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Osage County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	54.9	\$30,888,612.75
Grain farming	58.8	\$11,452,569.01
Vegetable and melon farming	1.6	\$240,024.72
Fruit farming	0.5	\$35,568.47
Tree nut farming	0.0	\$19.47
Greenhouse, nursery, and floriculture production	3.0	\$337,561.13
All other crop farming	69.0	\$2,879,319.19
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	752.6	\$45,971,244.81
Dairy cattle and milk production	21.0	\$6,124,930.86
Poultry and egg production	0.8	\$443,945.74
Animal production, except cattle and poultry and eggs	9.4	\$628,580.75
Commercial logging	1.2	\$30,449.27
Commercial hunting and trapping	1.1	\$21,830.50
Support activities for agriculture and forestry	23.6	\$1,450,879.57
Animal, except poultry, slaughtering	47.2	\$31,760,736.47
Bread and bakery product, except frozen, manufacturing	4.2	\$446,380.32
Frozen cakes and other pastries manufacturing	0.2	\$33,823.78
Farm machinery and equipment manufacturing	4.7	\$1,513,404.49
Veterinary services	28.7	\$2,587,635.28
Landscape and horticultural services	78.0	\$2,936,622.62

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Osage County, the retail sector was omitted.